

**AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**LISTING OF CLAIMS:**

1. (Currently Amended) A polyethylene wax defined by the following features (i) to ~~[(iv)]~~ (vi):
  - (i) said polyethylene wax is an ethylene homopolymer or a copolymer of ethylene and at least one olefin selected from  $\alpha$ -olefins of 3 to 20 carbon atoms,
  - (ii) a ratio (Mw/Mn) of the weight-average molecular weight (Mw) to the number-average molecular weight (Mn), as measured by gel permeation chromatography (GPC), is in the range of 1.7 to 4.0,
  - (iii) the softening point is not higher than ~~125°C~~ 105°C, ~~and~~
  - (iv) the penetration hardness is not more than ~~[[15]]~~ 10 dmm,
  - (v) a ratio (Mz/Mw) of a z-average molecular weight (Mz) to a weight-average molecular weight (Mw), as measured by gel permeation chromatography (GPC), of 1.5 to 2.0, and
  - (vi) a density of 880 to 910 kg/m<sup>3</sup>.
  
2. (Currently Amended) The polyethylene wax as claimed in claim 1, which is a copolymer of ethylene and at least one olefin selected from  $\alpha$ -olefins of 3 to 20 carbon atoms and has a ratio (Mw/Mn) of a weight-average molecular weight (Mw) to a number-average molecular weight (Mn), as measured by gel permeation chromatography (GPC), of 2.6 to 4.0, ~~a softening point of not higher than 110°C, a penetration hardness of not more than 15 dmm,~~ an intrinsic viscosity  $[\eta]$ , as measured in decalin at 135°C, of 0.15 to 0.50 dl/g, ~~a ratio (Mz/Mw) of a z-average molecular weight (Mz) to a weight-average molecular weight (Mw),~~

~~as measured by gel permeation chromatography (GPC), of 1.5 to 2.0, a density of 880 to 910~~  
~~kg/m<sup>3</sup>~~ and an acetone extraction quantity of not more than 6% by weight, wherein the  
softening point (Ts (°C)) and the penetration hardness (Y (dmm)) satisfy the following  
relationship (I):

$$-0.53T_s + 62 > Y > -0.53T_s + 53 \quad (I).$$

3. (Currently Amended) The polyethylene wax as claimed in claim 1, which is  
~~an ethylene homopolymer or a copolymer of ethylene and at least one olefin selected from  $\alpha$ -~~  
~~olefins of 3 to 20 carbon atoms and~~ has a ratio (Mw/Mn) of a weight-average molecular  
weight (Mw) to a number-average molecular weight (Mn), as measured by gel permeation  
chromatography, of 1.7 to 3.3, a softening point of 88 to ~~125°C~~ 105°C, a penetration hardness  
of not more than 7 dmm and an intrinsic viscosity  $[\eta]$ , as measured in decalin at 135°C, of  
0.05 to 0.20 dl/g.

4. The polyethylene wax as claimed in claim 1, which is prepared by the use of a  
metallocene catalyst.

5-9. (Canceled)